Middle School Activity Packet: Risk, Investments & Insurance Basics

Much like reading with children from a young age can help strengthen literacy, engaging with children about money topics can be a powerful tool to help them better understand money and develop healthy habits. In fact, research shows that many money habits are set by age seven.

The Illinois State Treasurer's Office created the Money Minded Illinois program in 2018. It is a free financial literacy curriculum for teachers and school districts across the state. It was written to meet Illinois State Board of Education (ISBE) standards, and full curriculum booklets are available for download for first grade through middle school at **MoneyMindedIllinois.com.**

Activities from each grade booklet were selected to make packets for families and communities to engage with children in conversations about money. To cover a range of basics for 6th – 8th grade, we've created packets by topic. In this packet, there is a variety of **individual activities and group games about risk, investments, and insurance.** We hope you enjoy learning and playing together.

Check out other middle school activity packets:

- Budgeting
- Banks & Interest
- Credit

You can also enhance your own personal finance knowledge by creating a free account on the Illinois Financial Wellness Hub (FinWell Hub) at **IllinoisTreasurer.Enrich.org**. The FinWell Hub offers practical tools and courses, as well as free access to Certified Personal Finance Coaches. The FinWell Hub is for adults and high school age students.

Happy learning!

Illinois State Treasurer's Office

Michael W. Frerichs
ILLINOIS STATE TREASURER

Investment Buzz Words

Have you heard of the Stock Market? Or the Stock Exchange? While many people are familiar with these terms, they can get confusing. However, they are a useful tool to grow your money, so it's important to understand how investments work.

Stocks

Another word you can think of when you see "stock" is "ownership." If you buy a stock (also known as a share) in a company, you now own a very small piece of it. For example: Let's say you really love the Disney company, and you feel that in general, they have a good business. You buy a stock in it, and now you own a teeny part of the Disney franchise. As that company succeeds or fails, your stock value will rise and fall. When it rises, you earn money. When it falls, you lose your money. Stock prices are always fluctuating, so in turn, you are constantly losing and earning. In the short term, this happens quite a lot. You may see your money increase and decrease on a weekly, or even daily, basis. However, in the long term, you will mostly see a gain. You can decide how risky you want to be with your money by what stocks you buy.

Bonds

A bond represents debt that a company owes you. For example, if you buy a government savings bond, you become a lender to the federal government, and they must pay you back for the loan. They also must pay you interest on the loan, which is how your bond makes money. Bonds are considered less risky than stocks because you know exactly how much in interest you will make annually. They do not gain and lose the way that stocks do.

Money Market Funds

This type of investment is considered "as good as cash." You can write a check out of a money market fund the same way you would write a personal check. The risk is extremely small on these funds, which also means the return is very small. For example, the Illinois Treasurer's Office invests most of their money from taxpayers in commercial paper because there is very little risk.

Securities

If you hear someone talk about trading securities, they are referring to stocks, bonds, and money market funds.

Mutual Fund

This refers to a pool of money that is provided by individuals or companies to be invested in stocks, bonds, and other funds. A fund manager is hired to invest the money on behalf of the investors. The

collection of what they invest is your portfolio. You, as an individual, do not have to then worry about what stocks are high or low, when to sell them, etc.- it is all done for you.

Capital Gains

An increase in value from the time a company's stock was purchased until it was sold.

Dividend

This is the money stockholders are paid when the company earns a profit. It is common for dividends to be paid quarterly, semi-annually, or annually.

Common Stock

In this type of stock, shareholders are considered owners in the company and have voting rights involving some of the company's decisions.

Preferred Stock

These stockholders do not have voting rights but receive dividends before any common stockholders do.

Bear Market

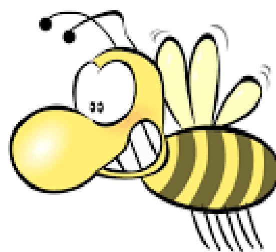
This is a trading term that is used to describe a stock market in a downward trend. This means that stock prices are falling.

Bull Market

This is the exact opposite of a bear market. In a bull market, stock prices are rising.

Assets

A resource with economic value that an individual, corporation, or country owns or controls with the expectation that it will make money in the future.



Name: ____

Publicly Traded Companies

Stocks are not available for every company or business. Publicly traded companies refer to those that are available on the Stock Market, and you can buy a share in. Usually, a company decides to go public when they want more money to grow. They get market exposure by being on the stock market, plus they have additional leverage when seeking a business loan if they are publicly traded. Going public is considered a big step for a company. When a company wants to go public, they issue an IPO (Initial Public Offering).

Think of the top ten companies that you are most interested in. Then, research if they are public or not, and what their current price to buy a share.

Company	Publicly Traded (If yes, write their symbol. If no, write no.)	Cost of Stock (if traded)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Did anything surprise you in your research?

Risks and Rewards of Investing Your Money

There are three rules for building wealth: 1) start early because money needs time to grow; 2) buy and hold (in other words, keep your money invested) and 3) diversify your investments- don't put all your eggs in one basket.

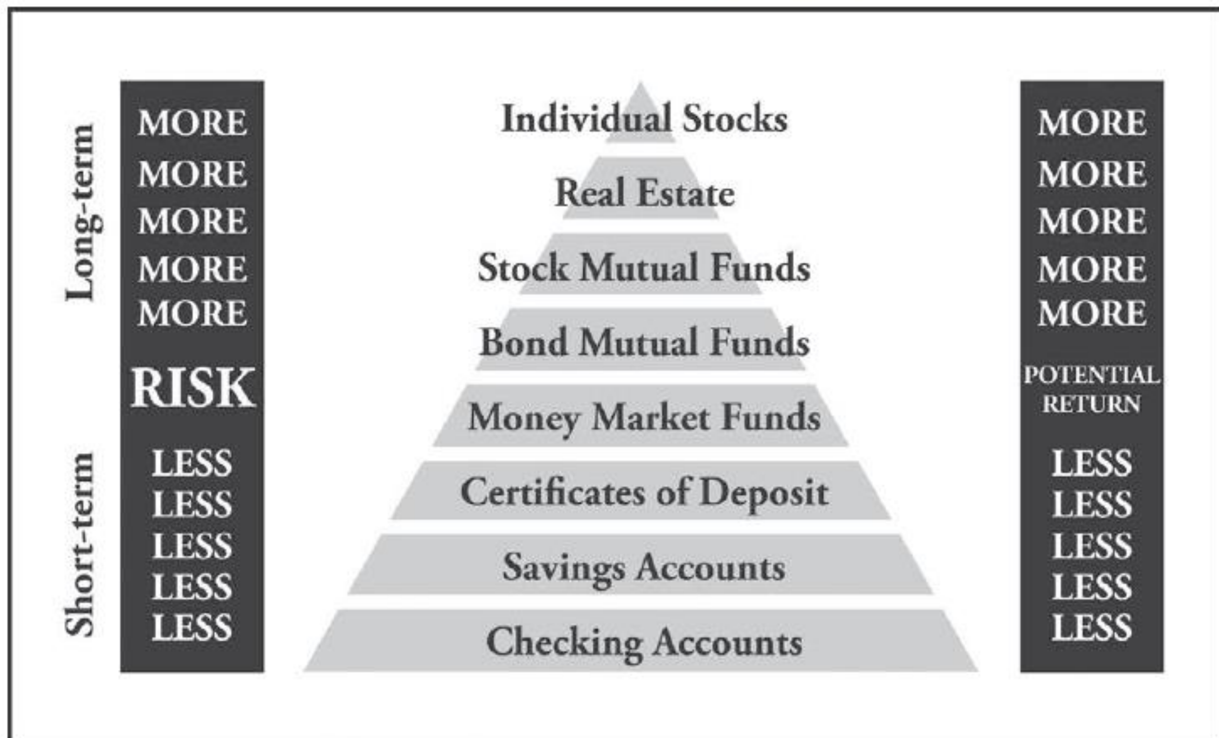
It may seem unreasonable to think about building wealth when you are young. However, wealth can begin to accumulate if you use your money wisely and control how much you spend. There are rewards to investing money, but there are also risks.

What exactly is risk? In a nutshell, it is uncertainty about a situation. A situation can have several possible outcomes and it is difficult to predict what the outcome may be. Some of the outcomes are positive while others are negative. When a risk involves investments, the greater the risk the greater the potential reward (or increased value) of the investment. Younger individuals can typically afford greater risks because they have a longer period of time to regain any losses suffered along the way. For that same reason, an older person typically takes less risks because they don't have as much time to recover any financial setbacks while they are still earning money.

Individuals have different comfort levels associated with risk. Some are willing to take a risk whereas other are more cautious. It's important to determine what your investment goals are. Are you saving for a new phone? Or perhaps a college education? Your goals will determine whether you invest for the short or long term.

Below is a Risk-Return Pyramid that shows the various categories of investments. There is less risk involved with checking and savings accounts in comparison to individual stocks. Every person has a level of tolerance for risk. Some people ignore the ups and downs of financial markets and concentrate on their long-term objectives. Other people get nervous every time they see any changes As you can see, the bottom portion of the pyramid includes shorter-term investments that give you easier access to your money, but also have less of a return. In other words, you will not be able to make a lot of money off of those investments. The higher you go on the pyramid, the longer your money is tied-up, but you also have a higher potential of making money on your investment.

Source: National Center for Economic Education: Learning, Earning, and Investing



Remember, everyone has a certain comfort level with risk – especially when it comes to money! You want to be cautious and diversify your risk. That means that you want to split up your investments into several different areas, so your risk is spread across different types of investments. As a result, you will be less vulnerable if an investment loses money.

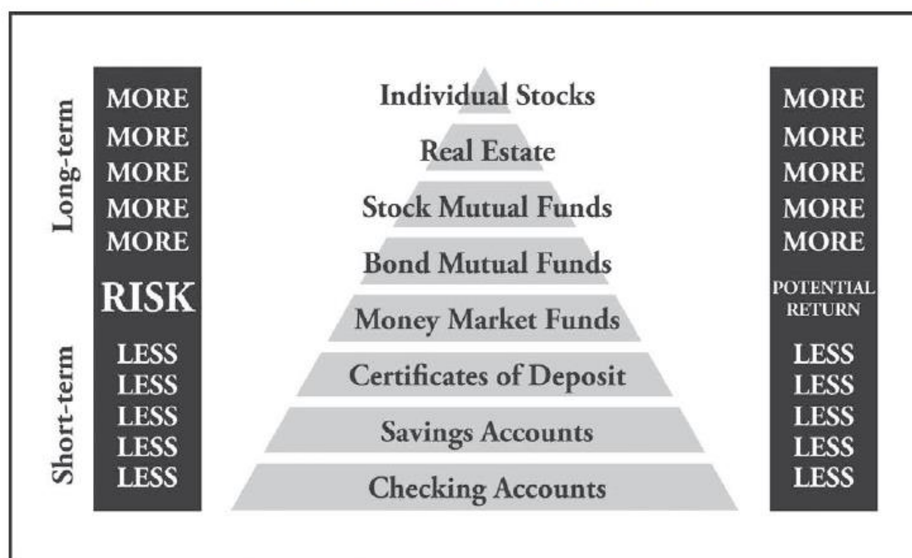
Source: National Center for Economic Education: Learning, Earning, and Investing

Look at the Risk-Return Pyramid below, where do you think your risk tolerance level is at?

_____ Do you think you will be an aggressive investor (someone with a high risk tolerance) who is willing to risk losing money to potentially get better results?

_____ Do you have a moderate risk tolerance and want to strike a balance between high risk and low risk investments?

_____ Do you think you will be a conservative investor (someone with a lower risk tolerance) who typically looks for safer investments and is okay losing some money, but not a lot?



Why did you choose that tolerance level? ____

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Source: U.S. Securities and Exchange Commission

Asset Allocation Game

What is your team's investment plan? ________________________________

What is your team's level of risk tolerance? ________________________________

Your team has $60,000 for your investments. Divide up your money into the categories below. Be prepared to defend your choices in discussion.

Dollar Amounts	Percentages
Stocks ____________________	______________
Bonds ____________________	______________
Cash ____________________	______________

Game Rules

- Your teacher will give each group two dice and a penny.
- There is a total of 10 rounds.
- Each round, you roll one die to indicate what asset category will be affected.
  - 1, 3, and 5 are stocks
  - 2 and 4 are bonds
  - 6 is cash
- Roll the second die to see how much money is involved. Multiply the number by $1,000. EX: If you role a 5, it will be $5,000.
- Flip the coin to determine if you lost or gained that amount of money.
  - Heads is a gain, tails is a loss
- Write down the new asset allocations.
- At the end of 10 rounds, as a group, you will analyze your results. Be prepared to discuss in class.

Round	Stocks	Bonds	Cash	% Stocks	% Bonds	% Cash
Sample	*$30,000*	*$20,000*	*$10,000*	*50.0%*	*33.3%*	*16.7%*
Round 1	*$30,000*	*$16,000*	*$10,000*	*53.6%*	*28.6%*	*17.8%*
Our Allocation						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

How do asset allocation percentages in Round 10 compare to the original plan? Do adjustments need to be made? Were you surprised on how this ended?

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Asset Allocation – Teacher Instructions

This game demonstrates to students how asset allocation can change over time and depending on financial goals.

Items Needed Prior to Class

- ✓ One *Asset Tracking Chart* for each student group (4 students per group).
- ✓ Two dice per team.
- ✓ One penny per team.

Pre-Game Instructions:

- ✓ Divide students into groups of 4.

- ✓ Pass out an *Asset Tracking Chart* to each group for their investments.

- ✓ Explain that each team will begin with an imaginary $60,000 that they can divide among three categories.
    - o **Stocks** are the riskiest asset category followed by **bonds**.
    - o **Cash** is the least risky asset category. This category includes savings accounts, certificates of deposits, and money market accounts.

- ✓ Have students determine their financial goals and how they want to "allocate" their $60,000. *They should also take into account their level of risk tolerance and how long they'll be investing in order to reach their goals*. They write the amount they are allocating in each column

- ✓ When they have made their decisions, engage the whole class in a discussion, encourage students to defend their asset allocation.

- ✓ Have students calculate the percentage of their funds allocated to each category of asset by dividing each asset allocation by $60,000. Write these percentages on their worksheet. (see sample).

- ✓ Give each team two dice and a penny.

Instructions/Rules

- ✓ There are 10 rounds of the game.

Source: www.scholastic.com

- ✓ In each round, the students roll one die to indicate which asset category will be affected
  - o 1, 3, and 5 are stocks
  - o 2 and 4 are bonds
  - o 6 is cash

- ✓ Roll the second die to see how much money is involved ($1,000 times the number on the die).

- ✓ Flip the coin to see if it's a gain or a loss (heads is a gain; tails is a loss)

- ✓ Write down the new asset allocation.

- ✓ At the end of Round 10, students compare their asset allocation to their original plan and goals. Engage in class discussion about how they feel about the risks they took (if any).
  - o Do they need to adjust their original investments based on the performance of each asset category?
  - o What surprised them about how much money they ended up with?
  - o What did they learn?
  - o What would they do differently?

Example on Asset Tracker

- ✓ *A team rolls a 2 (bonds) and a 4 ($4,000) and flips tails (loss). They suffer a loss of $4,000 in their bond category, as shown in the chart. Have them write the new total on their chart and calculate new asset allocation percentages. In the example, since the team lost $4,000 they will be dividing by $56,000 instead of $60,000.*

- ✓ NOTE: If a team gets to zero in a category, and they roll that number in a subsequent round, they roll again until they get a category that still has funds in it.

No More Work!

Everyone loves the sound of retirement… never having to work again?! Great! But how do people make money when they no longer work? Below are several popular investment savings options that people use.

Pensions

These type of retirement accounts are most often found in government service (teachers, firefighters, police officers, etc.). The employer contributes money to the pension plan where you are working. The money will then be paid to you, usually as a monthly check, once you retire. However, how much you receive depends on your years of service, your age, and how much you were earning when you retired. You do not get to choose how your money in invested in a pension plan, but it does present very little risk to the employee. The risk comes into play regarding how well the plan is managed. In the worst-case scenario, the pension plans are managed poorly and not able to pay out all the benefits it promises.

401(k)

This is another retirement savings plan that is sponsored by a person's employer. It allows workers to invest a piece of their paycheck before taxes are taken out, mostly through mutual funds. Often, employers will match the funds you put into your 401k up to a certain percentage. For example, if you put 2% of your salary into your 401k, your employer might also put in 2%. There are many 401k plan choices, and you can choose which one you are most comfortable with.

Individual Retirement Account (IRAs)

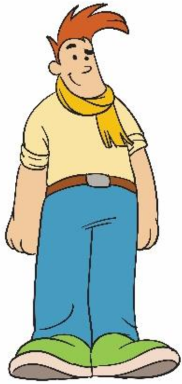
There are several different types of IRAs, including Roth IRA, SIMPLE IRA, and SEP IRA. The kind of IRA that you open up is determined by your income. Depending which you are eligible for will also determine if your contributions can be tax deductible or not. You can do this through banks, credit unions, and other brokers. Traditional IRAs have contributions that are tax deductible, but their withdrawals are taxed. If you are an individual taxpayer, you would set up a traditional or Roth IRA. Often, workers do this along with their pension or 401(k) as another means to save. If you are a self-employed individual, such as a freelancer or small business owner, you would open a SEP IRA. SIMPLE IRA stands for Savings Inventive Match Play for Employees) and again is for a small business owner to make contributions to their employees.

It is important to begin saving immediately for retirement once you start working. The more you have saved, the better off you'll be as adults. If you do not, you may not get to experience retirement at all.

Anspach, Dana. "What Is a Pension Plan?" *The Balance*, The Balance, 27 Jan. 2019, www.thebalance.com/what-is-a-pension-and-how-do-you-get-one-2388766.
The Wall Street Journal, Dow Jones & Company, guides.wsj.com/personal-finance/retirement/what-is-a-401k/.
Kagan, Julia. "Individual Retirement Account (IRA)." *Investopedia*, Investopedia, 9 Apr. 2019, www.investopedia.com/terms/i/ira.asp.

Advertisement Assignment

Create an ad for adults encouraging them to save for retirement. This can be a poster, a PowerPoint, a cartoon strip, a radio or tv commercial, or any other advertisement style you would like to try. Make sure you include facts about the current state of retirement and steps they can take to ensure a relaxing retirement. Use this paper to brainstorm your ideas below!



Insurance

Insurance helps protect your assets and wealth. Payments, called premiums, are paid to an insurance company at certain periods throughout the year. These payments can be set-up as monthly, quarterly, semi-annual, or annual payments. There are different types of insurance depending on what you want to protect. The most common types of insurance policies are for health, life, vehicles, homeowners, and renters.

Why should you consider buying insurance and how does it work?

Insurance provides a way in which consumers can transfer and share risk, but they must pay for this benefit or service. Buying insurance is not appropriate for all levels and types of risk. Buying insurance makes the most sense when the potential financial cost is great and there is a significant probability of loss over the long term. In these cases, it is wise to share and transfer risk by paying premiums for an insurance policy.

Common types of insurance:

- ✓ **Automobile** – provides financial protection to the owners, operators, and occupants of an automobile in case of accidents, theft, or damages.
- ✓ **Health –** protects against financial loss caused by the costs of illness or accident.
- ✓ **Life** – provides financial protection to a family when the insured, who is typically the major wage earner of the family, dies
- ✓ **Homeowners** – protects the homeowner from loss caused by fire, theft, and storm damage of the structure and the possessions within the structure. A liability insurance feature protects the homeowner from loss when someone is injured on the homeowner's property
- ✓ **Renters** – Protects the renter from loss or personal possessions because of such risks as fire, theft, or storm damage.

Source: National Council on Economic Education – How insurance works

- ✓ **Disability** – provides income during a specified period when a person is unable to work because of illness or an accident.

How Insurance Works

The purpose of having insurance is to spread risk to many different people. Suppose the football team at your school wanted to protect themselves from theft. Each student has football equipment assigned to them that they keep in their gym lockers. There is a total of 85 students on three different football teams at the middle school. The school decided to offer insurance to the football players in case anyone broke in and stole their equipment. The coaches estimated that each football player had an average of $50 of equipment in their lockers. If 10 lockers were broken into, that would be a $500 loss ($50 stolen equipment x 10 lockers = $500 loss).

$$\frac{\$500.00}{85 \text{ players}} = \$5.88 \text{ cost per student to insure their lockers}$$

This example gives you a rough idea of how insurance works. If all the football players bought insurance, they would be protected against any losses if their equipment was stolen from their locker. If they didn't buy insurance and someone broke into their locker, it would cost the player $50.00, whereas if they had insurance, it would cost them $5.88. Maybe 10 lockers never get broken into, but that's okay. You're only paying a small amount to guarantee that if your locker does get broken into, you won't have to pay $50 of your own money.

Basically, insurance companies charge a fee, called a premium, which is paid by customers. This premium provides protection against certain types of financial loses. The fee or premium collected from everyone covers the losses.

Let's look at this on a larger scale. Depending on the type of insurance, sometimes you need to pay a deductible. A deductible is the amount you pay for covered services before your insurance plan starts to pay. In other words, for bigger insurance plans (like car, home, and health insurance) you are required to pay a part of the fees up front. So, let's say you buy a house. Your home insurance is $1200 annually with a $500 deductible. That is a lot of money! But, let's pretend that a pipe bursts in your basement from the cold in the winter and everything is damaged. The cost to clean up everything and replace what has been damaged is around $15,000. With your home insurance, you are only going to pay roughly $1700 for that year.

Source: National Council on Economic Education – How insurance works

Some insurance is required by law in Illinois. If you own a car, you must also purchase car insurance. If you are pulled over for speeding or get into an accident and you do not have car insurance, it is a hefty penalty against you. Across the county, it is required that you buy health insurance. Usually, if you apply for a mortgage on a home, you must show proof of home insurance. On the other hand, there are insurance policies for almost anything you own or do- if you choose to pay for it.

Picking insurance can be overwhelming because they come with many choices. You have the option to cover different aspects of a purchase. You can choose just the basic or upgrade to cover more potential damage. In the case of the home insurance, if your company had a special plan to cover plumbing that you chose not to pay for, your burst pipe wouldn't be paid through insurance. Your level of risk tolerance will play a factor into your decisions.

Overall, insurance is a part of everyone's life. You will have to make many decisions about a variety of insurance plans as you get older. Remember to always shop around to make sure you get the best price and to include the cost of insurance in your future budgets.

Source: National Council on Economic Education – How insurance works

Name: ___________________________________

Reducing Risk with Insurance

In this activity, you choose whether to buy insurance. Then you roll a die to find out if you have experienced a catastrophe involving financial loss.

You must decide whether having insurance benefits you and if the benefit is worth the cost.

Step 1: You have budgeted $3,000 for insurance this year. Calculate the annual premium for each type of insurance below.

Based on your $3,000 budget, decide which type of insurance coverage you will choose.

Type of Insurance	Monthly Premium	Annual Premium	Do you want this coverage?
Car	$100.00		Yes / No
Health	$75.00		Yes / No
Renter's	$75.00		Yes / No
Personal Property	$20.00		Yes / No
Disability	$60.00		Yes / No
Total amount for annual premium(s):			

Step 2: You will roll a dice 6 times to determine whether you will experience a financial catastrophe. If you decided to purchase insurance, and you roll 1-5,

Source: Financial Fitness for Life, Grades 9-12, National Center for Economic Education

that means you may be responsible for a deductible or co-pay. If you did not purchase insurance and you roll a 1-5, you will pay for the loss out of your own pocket. If you roll a 6, you are safe and have no loss.

Dice	**Type of Insurance**	**Amount of Loss**	**Deductible/Co-Pay**
1.	Car	$4,000.00	$250.00
2.	Health	$3,200.00	$25.00
3.	Renter's	$2,800.00	$250.00
4.	Personal Property	$2,600.00	$0.00
5.	Disability	$10,000.00	$0.00
6.	Safe	$0.00	$0.00

Fill in the chart below each time you roll the dice. An example is provided.

A	B	C	D	E	F
Roll on Dice	Annual premium (calculated in Step One)	Deductible or co-pay (if insured)	If insured, add B & C Together:	Enter amount of loss (not insured)	Is column D greater or less than column E
Ex: 2	*$900.00*	*$25.00*	*$925.00*	*$0.00*	*Yes*
Total	N/A				N/A

Source: Financial Fitness for Life, Grades 9-12, National Center for Economic Education

Reducing Risk with Insurance – Teacher's Instructions

Overview:

In this activity, students will choose whether or not to buy insurance. They roll a dice to find out if they have experienced a catastrophe involving a financial loss. They decide whether or not having insurance benefits them and if it is worth the cost.

Items Needed:

- ✓ Dice (Students can work individually, in pairs, or on a team. That will determine how many dice are needed.)
- ✓ Handout – Reducing Risk with Insurance

Procedure:

Students have a $3,000 budget for insurance.

- ✓ Students are to calculate the annual premium for each type of insurance.
- ✓ After calculating the annual premium, they decide whether or not they want each type of coverage. Remind students they only have $3,000 budgeted for insurance.
- ✓ Each student rolls the dice 6 times.
  - o Each roll identifies a situation that may involve a financial loss.
  - o If the student has insurance, they avoid the loss. However, they still may be responsible for a deductible or co-pay.
  - o If they don't have insurance, they have to pay for the loss out of their own pocket.
- ✓ After the students have completed rolling the dice, they then calculate the payments (co-pays, deductibles, and non-insurance losses).
- ✓ Students fill in the chart (like the one below) each time they roll the dice. Please remind students that the calculated the annual premium in Step 1. An example is provided in the first row.

Source: Financial Fitness for Life, Grades 9-12, National Center for Economic Education

A	B	C	D	E	F
Roll on Dice	Annual premium*	Deductible or co-pay (if insured)	If insured, add B & C Together:	Enter amount of loss (not insured)	Is column D greater or less than column E
Ex: 2	*$900.00*	*$25.00*	*$925.00*	*$0.00*	*Yes*
TOTAL	n/a				n/a

- ✓ If column E is greater than column D, it means their insurance premiums and deductibles/co-pays were less than the financial loss.
- ✓ If column D is greater than column E, that means that they spent more on premiums and deductibles than the amount of the loss.
- ✓ After students complete the chart, ask them: Was having insurance worth it?

Wrap-Up:

People often complain if they pay for car insurance and never have an accident, but one fender bender can cost tens of thousands of dollars to repair. You have no way of knowing if and when disaster will strike, so insurance helps you plan ahead --- just in case

Source: Financial Fitness for Life, Grades 9-12, National Center for Economic Education